

Remarks

In the Office Action mailed on March 21, 2005 by the United States Patent and Trademark Office, the Examiner rejected claims 1, 2, 4, 6-14 and 33. By way of this Response and Amendment, Applicant has cancelled claims 2, 3, 5, and 15-32 without disclaimer or prejudice and amended claims 1 and 4. After entry of these amendments, claims 1, 4, 6-14, and 33 remain in the above-identified patent application. Reconsideration is respectfully requested in light of the foregoing amendments and the following remarks. The foregoing amendments and the following remarks are believed to be fully responsive to the final Office Action mailed on March 21, 2005.

I. CLAIM OBJECTION

The Examiner objected to claim 4 for allegedly depending on a cancelled claim. Claim 4 has been amended to depend from pending claim 1. Accordingly, the Applicants respectfully request withdrawal of this objection.

II. REJECTIONS UNDER 35 U.S.C. 102

The Examiner rejected claims 1 and 6-11 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,567,246 as issued to Sakakima et al on May 20, 2003 (hereinafter referred to as "Sakakima") or by U.S. Patent No. 6,545,906 as issued to Savtchenko et al on April 8, 2003 (hereinafter referred to as "Savtchenko"). Applicants respectfully traverse these rejections.

Independent claim 1 has been amended to recite the second thickness of the second magnetic layer "is greater than about 40 Å and also greater than the first thickness." It is respectfully submitted that Sakakima, Savtchenko, or any of the references of record teach, do not disclose or suggest a second magnetic layer positioned adjacent to the nonmagnetic spacer region, the second magnetic layer having a second thickness that is greater than about 40 Å and also greater than the first thickness. Accordingly, claim 1 and the claims that depend from independent claim 1 (i.e., claims 6-11) are not anticipated by Sakakima, Savtchenko, or any of the references or record. Therefore, the Examiner is respectfully requested to withdraw the rejections under 35 U.S.C. 102(e).

III. REJECTIONS OF CLAIM 2 UNDER 35 U.S.C. 102(e) and 35 U.S.C. 103

The Examiner rejected claim 2 under 35 U.S.C. 102(e) as being anticipated by Sakakima or under 35 U.S.C. 103(a) as being unpatentable over Sakakima. The Applicants respectfully traverse these rejections.

With regard to the rejection of claim 2 under 35 U.S.C. 102(e), a claim can only be anticipated if each and every element recited in the claim is disclosed in a reference, either explicitly or impliedly. The Applicants have amended claim 1 to incorporate the limitations of claim 2. Accordingly, this rejection now applies to the newly amended claim 1. In any event, Sakakima does not teach each and every element recited in newly amended claim 1. Specifically, Sakakima does not teach or suggest a second magnetic layer positioned adjacent to the nonmagnetic spacer region, the second magnetic layer having a second thickness that is greater than about 40 Å and also greater than the first thickness. Accordingly, the Applicants respectfully request withdrawal of this rejection.

As for the rejection under 35 U.S.C. 103(a), it is well known that in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify a reference or to combine the teachings of multiple references. Second, there must be a reasonable expectation of success. Third, the prior art must teach or suggest all of the recited claim limitations. Of course, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. Applicant respectfully submits that the Examiner has not met the basic criteria to establish a *prima facie* case of obviousness.

For example, although the Examiner admits that Sakakima does not disclose that the second thickness is greater than 40 Å or 4 nanometer, it is maintained in the Office Action that because Sakakima discloses that the free layer thickness is 1 to 10 nm and that the spacer layer in the free layer thickness is about 2 nm or less, the range of the second layer should be about greater than 4 nm or 40 Å. However, Applicants respectfully submit that there is no suggestion in Sakakima that the second layer should be greater than 40 Å. Moreover, there is no mention or teaching in Sakakima that a second magnetic layer positioned adjacent to the nonmagnetic spacer region has a second thickness that is also greater than the first thickness. It is only by using Applicants own teaching and the benefit of hindsight that the benefits of having a second magnetic layer positioned adjacent

to the nonmagnetic spacer region having a second thickness that is greater than about 40 Å and also greater than the first thickness becomes realizable.

Accordingly, all the limitations of independent claim 1 and the claims that depend from independent claim 1 (i.e., claims 4, 6-14, and 33) are not taught or suggested and a *prima facie* case of obviousness cannot be established without all of these limitations. Therefore, it is respectfully submitted that a *prima facie* case of obviousness does not exist and the Examiner is respectfully requested to withdraw the rejections under 35 U.S.C. 103.

IV. REJECTIONS OF CLAIM 4 UNDER 35 U.S.C. 103

The Examiner also rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Sakakima in view of Slaughter. Applicants respectfully traverse this rejection.

Claim 4 depends from claim 1 and therefore relies on the arguments above with regards to Sakakima. Slaughter does not teach a second magnetic layer positioned adjacent to the nonmagnetic spacer region, the second magnetic layer having a second thickness that is greater than about 40 Å and also greater than the first thickness. Accordingly, Slaughter does not make up for the deficiency of Sakakima. Thus, it is respectfully submitted that a *prima facie* case of obviousness does not exist and the Examiner is respectfully requested to withdraw the rejections under 35 U.S.C. 103.

Moreover, the Examiner does not provide any evidence that the cited art teaches a magnetic layer that is an amorphous magnetic alloy, as recited in claim 4. Thus, each and every limitation of claim 4 is not taught or suggested in the prior art and a *prima facie* case of obviousness does not exist. Accordingly, the Applicants respectfully request withdrawal of this rejection.

IV. CONCLUSION

Applicant respectfully submits that the above-identified application as amended is now in condition for allowance and the Applicant therefore earnestly requests such allowance. Should the Examiner have any questions or wish to discuss the foregoing response and amendment, Applicant requests that the Examiner contact the undersigned at (480) 385-5060.

If for some reason Applicant have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment of this

application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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